

To: Coffman, Joel[Coffman.Joel@epa.gov]
Cc: Albright, David[Albright.David@epa.gov]; Engelman, Alexa[ENGELMAN.ALEXA@EPA.GOV];
Moffatt, Brett[Moffatt.Brett@epa.gov]; Dermer, Michele[Dermer.Michele@epa.gov]; Salera,
Jerry@DOC[Jerry.Salera@conservation.ca.gov]; Adam Rogge[arogge@camsops.com]; Joe
Selgrath[selgrath@envirotechteam.com]; Gary Brierley[gbrierley@envirotechteam.com]
From: Matt Stikes
Sent: Thur 6/2/2016 9:55:32 PM
Subject: Re: Live Oak Class I

Joel,

Thank you for the response regarding WCAC power plant water disposal wells. Unfortunately, I can only speak on behalf of the WCAC operated wells which include Chalk Cliff, Badger Creek, McKittrick, and Live Oak (rows 2-5). Our understanding was that only Badger Creek and Live Oak were required to switch to Class I as they have stopped supplying steam to their associated oil field. Chalk Cliff and McKittrick plants are still delivering steam as was their initial design.

WCAC would be glad to participate in a possible EPA meeting with other operators in the same situation. I'd recommend Jerry Salera with DOGGR who could provide a thorough list of other cogen operators with Class II wells.

As far as a possible conference call we are available on June 8-9 to discuss details of Badger Creek and Live Oak. As far as a group meeting is concerned, sometime after June 20th would work for us.

Thanks for your help and consideration.

Best regards,

Matt Stikes, PG
EnviroTech Consultants, Inc.
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(661) 377-0073 ext. 18
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From: "Coffman, Joel" <Coffman.Joel@epa.gov>
To: Matt Stikes <mwsclimbs@yahoo.com>
Cc: "Albright, David" <Albright.David@epa.gov>; "Engelman, Alexa" <ENGELMAN.ALEXA@EPA.GOV>;
"Moffatt, Brett" <Moffatt.Brett@epa.gov>; "Dermer, Michele" <Dermer.Michele@epa.gov>; "Salera,
Jerry@DOC" <Jerry.Salera@conservation.ca.gov>
Sent: Wednesday, June 1, 2016 7:28 AM
Subject: RE: Live Oak Class I

Matt:

Below is a list provided to us by the California Division of Oil, Gas and Geothermal Resources (CDOGGR) of potential Permitted Class II injection wells that they believe need to be permitted by US EPA as Class I Non Hazardous (NH) underground injection control (UIC) wells:

District	County	Field	Area	Operator	API #	
Lease Name	Well #	Inj Type		Injection Zone	Water Zone	TDS
Comment						
Inland Cantleberry well. This well is inside the productive	Kern Jasmin C-1-22	WD	Any	Banks Energy, Inc. Vedder	02952207 765	Co-gen
boundaries but may need an AE after a project-						
by-project review.						
Inland 02985813 21,900	Kern Midway-Sunset Co-gen WD well	WD	Any WD-2	Chalk Cliff Limited WD	Tulare Monarch	
Inland 02986511 1,500	Kern Kern Front Co-gen WD well. This well injects into the Santa	WD	Any WD-1	Badger Creek Ltd. WD	Santa Margarita	
Margarita, which is one of the 11 Historically						
Treated as Exempt (HTE) Aquifers.						
Inland 02987661	Kern McKittrick Co-gen WD well	WD	Main WD-1	McKittrick Limited WD	Oligocene/Stevens	10,600
Inland WD well	Kern Kern River WD-1 WD	WD	Any	Live Oak Limited Santa Margarita/Olcese/	02989421 10,900	Co-gen
Vedder/Famoso						
Inland A WD Well Coast LLC	Kern 61-32 WF		Any Stevens	Crestwood West 36985	02901367 Industrial Process	Coles Levee
Inland A WD Well Coast LLC	Kern 83-32 WF		Any Stevens	Crestwood West 36985	02915283 Industrial Process	Coles Levee
Inland A	Kern 62-32 WF		Any Stevens	Crestwood West 36985	02958208 Industrial Process	Coles Levee

WD Well
Coast LLC

Our questions:

How many of the above listed wells are owned and operated by your clients?

Are there wells listed on the above list that are not owned and operated by your clients? If so, please name them.

Are there wells owned and operated by your clients that you believe need to be permitted as EPA Class I NH UIC wells that are not on the above list, and if so, can you please list them for us.

We will need to have a meeting with the owners/operators of the wells in need of EPA Class 1 NH UIC wells in the very near future so we can discuss the permitting of these wells.

Please reply and, if possible provide names of the owners/operators and potential meeting dates.

If you have any questions, call anytime. Thanks,

Joel Coffman Groundwater UIC Office

P.G./Physical Scientist 415.972.3530

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From: Matt Stikes [mailto:mwsclimbs@yahoo.com]

Sent: Tuesday, May 31, 2016 9:57 AM

To: Coffman, Joel <Coffman.Joel@epa.gov>

Cc: Adam Rogge <arogge@camsops.com>; Gary Brierley <gbrierley@envirotechteam.com>;

Joe Selgrath <selgrath@envirotechteam.com>

Subject: Live Oak Class I

Joel,

One of the other WCAC power plants that used to steam share is their Live Oak facility in the Kern River oil field. The Live Oak disposal well is located in section 18, T28S-R28E, MDB&M, API No. 029-89421. This was constructed at roughly the same time as Badger Creek, and the basal sand, the Famosa had a swab sample that resulted in 10,900 mg/L TDS. This well is similar in that it is much deeper than the surrounding oil producing wells, see AOR map attachment.

DOGGR had reviewed the zones of all Kern River injection projects and the Live Oak project was required to drop the Santa Margarita and Olcese zones and leave only the

Vedder and Famosa zones. The Famosa is the only zone that has been used for injection - the zones in question were to be dropped from the Project Approval Letter.

Also at that time, DOGGR had requested other UIC project data that was missing from the file including a 1/4 mile AOR with casing diagrams, see cover letter attachment. This well is similar to Badger Creek well in that no wells penetrate the injection zone within 1/4 mile.

Live Oak no longer shares steam with Chevron in the Kern River field and therefore must switch to Class I status. However, in this case there is not an approaching deadline as with Badger Creek. We still would like to see this processed in a timely manner.

Let me know of a good time for a conference call when we can discuss these issues..

I'll be getting a dropbox setup shortly to share the Class II project files for both Badger Creek and Live Oak.

Thanks,

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